ited moderate decrease in VIII:C level, one case manifested slight decline in physical ability, one case manifested slight decline in joint function. Meanwhile, both the decreasing of HIV RNA load and the increasing of $CD4^+$ T cell count were notable ($P<0.05$). It is showed no statistics change could be seen in complete blood cell count after 6 years of HAART, however, the mean hemoglobin level of all 39 patients had decreased slightly blow normal range. It also showed, serum alanine aminitransperase (ALT) increased to a level which moderately above normal span but without statistics significance, however, triglyceride and uric acid were markedly higher compared with the data before HAART ($P<0.05$); no statistics difference could be seen in aspartate transaminase (AST), serum bilirubin (SB), blood amylase, blood urea nitrogen, blood creatinine and fasting plasma glucose ($P>0.05$).
**Conclusion:** Long term HAART is likely to have limited impact on haemorrhage status, joint function and physical ability in Haemophilia A/AIDS patients; however, HAART therapy is effective to inhibit HIV replication and promote $CD4^+$ cells proliferation which indicates HAART is positive for immune recovery, moreover, Long term HAART could induce animia, hepatic damage, hyperlipidemia and hyperuricemia and which may widely exist.

### CS11-03 Promoting HIV Screening and Voluntary Counselling and Testing as Important Public Health Interventions

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**Aims:** Individuals who are diagnosed as HIV-positive tend to change behavior to reduce transmission to others. The aims of this work are to estimate the expected epidemiological impacts of increasing HIV testing rates; to determine what testing levels are required for serosorting to be an effective risk reduction strategy for HIV-negative individuals; and to recommend optimal testing rates for different settings and epidemics.
**Methods:** Extensive reviews were carried out of the social-behavioral, biological, clinical, and epidemiological HIV literature relevant to numerous countries. These diverse data sources were incorporated into mathematical models that simulated complex mixing patterns and polymorphous sexual and injecting behaviors among numerous population subgroups, the transmission of HIV throughout the population, along with tracking of the disease progression and clinical outcomes of HIV-infected individuals. The models were used to simulate the past and current trends of HIV epidemics, identify key drivers, and forecast expected future trends according to current conditions and due to implementation of targeted intervention strategies focused on voluntary counseling and testing (VCT) and routine screening. The models were coupled with uncertainty and sensitivity analyses.
**Results:** There is a disproportionate association between undiagnosed status and HIV transmission. For example, it is estimated that in Australia, where testing rates are relatively high, approximately 30% of new HIV infections are transmitted from the ~10-15% of HIV infections that are undiagnosed. Similar disproportionate associations exist in other locations. Even modest increases in HIV testing rates could have substantial epidemiological consequences in all settings, particularly in countries where rates are currently low.
Surprisingly, it was found that the practice of serosorting to reduce the risk of HIV acquisition likely increases the risk of HIV in most settings; testing rates would need to be sufficiently high such that the proportion of infections that are undiagnosed is less than 20% for serosorting to be effective.
The appropriate goals for testing frequency and coverage rates vary considerably between locations. However, increases in coverage among the right target groups, if accompanied by even relatively small behavior change, can be sufficient to lead to significant public health control of HIV epidemics. In most settings, public health goals should be at least regular annual testing of individuals at relatively high risk and up to 4 times per year for individuals at very high risk of HIV infection. Testing-based interventions can be expected to have a noticeable impact within a few years and the benefits will also increase over time.
**Conclusions:** Promoting increases in the coverage and frequency of HIV testing, particularly among people at high risk, could be a highly-effective public health intervention. It is important to provide easy access to VCT sites and make HIV screening a more regular and routine component of clinical consultations. This must be coupled with educational messages that encourage testing and make it more acceptable within given cultural environments.

### CS11-04 Sustaining First-line Antiretroviral Regimens: The Third World Experience

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Long-term success with Highly Active Antiretroviral therapy (HAART) is a realistic and achievable goal for people living with HIV-1 infection even in resource limited settings. There is now ever growing evidence of continuing improvements in the clinical management and treatment outcomes of people living with HIV-1 infection. This has facilitated our understanding of the contributing factors that determine durable success. The epidemiologic evidence of success with HAART in suppressing HIV-1 replication and preventing AIDS progression and death is now overwhelming. Walensky et al estimated that 2.3 million life-years were saved by antiretroviral therapy in the United States from 1996-2004.
A key determinant in ensuring long-term success is the selection of the initial antiretroviral regimen. The "ideal" regimen should have high potency, convenient dosing, and minimal short as well as long-term adverse effects. Of equal importance is the timeliness of treatment initiation which has been recommended to commence before the development of AIDS defining events. Various strategies to ensure optimal medication adherence and patient participation has been utilized to maximize good clinical outcome. These adherence programs must be consistent and acceptable to local culture and practice. Often family and community support has been used as tools to achieve good medical adherence. This is of particular importance in countries with limited second-line antiretroviral options; where most patients realistically have but one therapeutic chance to achieve good and sustained viral suppression. Specific attention to comorbidities including drug use, that may affect treatment outcomes must also be considered and addressed. The HAART experience from countries with limited resources will be discussed to illustrate the above key information.

## *Concurrent Session 12 – Management of Hepatitis B Patients*

### CS12-01 Diagnosis and Monitoring of Hepatitis B Patients

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### CS12-02 Hepatitis B Vaccination in Children

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The world's first nationwide hepatitis B virus (HBV) universal vac-